

Remarks

Reconsideration and further examination is respectfully requested.

Claims 11-33 were last presented for examination. Claims 11, 16, 21-26, and 31-33 are amended. Amended claims 11, 16, 21-26 and 31-33 and claims 12-15, 17-20 and 27-30 are hereby submitted for further examination.

In brief, the present claimed invention comprises a fixed frame, a moving sash, and a screen attached directly to the fixed frame by a hook and loop fastener between the fixed frame and the closed movable sash. The movable sash is operable to swing about an axis to open and close while the screen is in place and provides screening for the fixed frame. Such a window may be a conventional casement window or other swinging window style.

Applicant thanks the Examiner for a personal interview on 17 June 2003. Applicant appreciates the opportunity to demonstrate an embodiment of the presently claimed invention and further appreciates the discussion of various aspects and arguments of this case.

35 USC 112 Rejections

Claims 21-25 were rejected under 35 USC 112 as being indefinite. Specifically, the Examiner pointed out that the claims are apparatus claims dependent on an independent method claim. Claims 21-25 are amended to be method claims and to particularly point out and distinctly claim the invention.

35 USC 103(a) Rejections

Claims 11-13, 15-18, 20-23, 25-28, and 30-33

Claims 11-13, 15-18, 20-23, 25-28, and 30-33 were rejected under 35 USC 102(e) as being unpatentable over U.S. Patent No. 6,456,487 to Kehne in view of U.S. Patent No. 4,867,222 to Roman et al. Claims 12, 13, 15, 17, 18, 27, 28, and 30 and amended claims 11, 16, 20-23, 25-26, and 31-33 are submitted for further examination.

Kehne discloses a casement window wherein the sash frame is usually mounted for swinging movement about a vertical axis. Kehne discloses a screen that is mounted in a frame, which in turn, is mounted against the jambs of the window.

Kehne states in column 1, lines 60-62, that the window system contains a "provision of means for supporting a screen substantially within the confines of the fixed frame member in a more or less permanent manner." Applicant's claims are directed to a "removable screen without a substantially rigid peripheral frame."

Assuming *arguendo* that the screen of Kehne was intended to be removable, the screen and frame of Kehne would be extremely difficult to install and remove from the inside of the building using the embodiment illustrated in Figures 1-4. It is clear that Kehne did not contemplate the problems associated with a "removable screen" as set forth in the claims and does not address the specific problems of a removable screen in combination with a casement window or securing the screen frame from the interior.

Kehne clearly teaches away from a "removable screen without a substantially rigid peripheral frame," as set forth in the claims, by stating that the screen is attached in a "more or less permanent manner." Further, because of the difficulty of installing and removing the frame and screen, Kehne contemplates only that the screen be mounted "in a permanent manner" presumably from the exterior.

A reference that teaches away from the applicant's invention may not properly be used in framing a 35 USC 103 rejection of applicant's claims. See United States v. Adams, 148 USPQ 429 (Sup. Ct. 1966). It is therefore improper to combine Kehne with another reference because Kehne is a teaching away as set forth in United States v. Adams, 148 USPQ 4429 (Sup. Ct. 1966).

Claim 11 has been amended to recite "a removable screen without a substantially rigid peripheral frame." Claims 16 and 26 have been similarly amended. Likewise, claim 31 recites "a removable screen that does not have a substantially rigid peripheral frame directly to said fixed frame."

Kehne clearly does not teach connecting the screen "that does not have a substantially rigid peripheral frame directly to the fixed frame" as set forth in the claims, but teaches that the screen must first be held in a separate frame.

Roman discloses a window cover that is attached to the interior window casing of a double sliding sash window system. The cover of Roman may be a screen and may be attached by affixing only the hook portion of a hook and loop fastener system to the casing.

Roman discloses in Figure 3 that the screen panel 22 is mounted to the interior of the window system and specifically not "mounted between the fixed frame and the moving sash such that the moving sash is in contact with the removable screen when the moving sash is in the closed position" as set forth in claim 11. Rather, Roman mounts the screen to the casing of the window. Roman also teaches away from mounting the screen "between the fixed frame and moving sash" as set forth in the claims by requiring the screen to be mounted on the casing. A combination of Roman with another reference is improper as set forth in United States v. Adams, 148 USPQ 4429 (Sup. Ct. 1966).

As pointed out above, the screen of Roman is held onto the window casing by using only the hook portion of a hook and loop fastener system. Claim 11 sets forth that

the screen is attached “with hook and loop fasteners.” Neither Roman or Kehne teach attaching a screen “with hook and loop fasteners” as set forth in claim 11. Hence, Roman and Kehne, taken either singly or in combination do not disclose all of the limitations of the presently claimed invention.

The principles of operation of a casement window, such as with the presently claimed invention and that of Kehne, are substantially different from that of a double sliding sash window as disclosed by Roman. The presently claimed invention comprises “a moving sash connected to said fixed frame and operable to substantially swing about an axis with respect to said fixed frame from an open position to a closed position” as set forth in claim 11. A double sliding sash window, as in Roman, operates by sliding a moving sash in a track that is typically parallel to, but not in line with, a second sash. Because the principles of operation are substantially different, the problems and various solutions of mounting a replaceable screen are likewise substantially different.

Therefore, Applicant asserts that the casement window of Kehne and the double sliding sash window of Roman are non-analogous art and should not be combined on that basis.

In order to combine references in an obviousness rejection, a showing of a suggestion, teaching, or motivation to combine the prior art references is an “essential evidentiary component of an obviousness holding.” C.R. Bard, Inc. v. M3 Sys. Inc., 157 F.3d 1340, 1352, 48 USPQ2d 1225, 1232(Fed. Cir. 1998). This evidence may flow from the prior art references themselves, the knowledge of one of ordinary skill in the art, or, in some cases, from the nature of the problem to be solved. See Pro-Mold & Tool Co. v. Great Lakes Plastics, Inc., 75 F.3d 1568, 1573, 37 USPQ2d 1626, 1630 (Fed. Cir. 1996). However, the suggestion more often comes from the teachings of the pertinent references. See In re Rouffet, 149 F.3d 1350, 1359, 47 USPQ2d 1453, 1459(Fed. Cir. 1998). This showing must be clear and particular, and broad conclusory statements about the teaching of multiple references, standing alone, are not “evidence.” See Dembiczak, 175 F.3d at 1000, 50 USPQ2d at 1617. However, the suggestion to combine need not be express and “may come from the prior art, as filtered through the knowledge of one skilled in the art.” Motorola, Inc. v. Interdigital Tech. Corp., 121 F.3d 1461, 1472, 43 USPQ2d 1481,

1489(Fed. Cir. 1997). See Brown & Williamson Tobacco Corp. v. Philip Morris Inc., 56 USPQ2d 1460 (CA FC 2000).

There is no motivation to combine Kehne and Roman. Kehne clearly does not suggest any method for “a replaceable screen” and in fact describes mounting the screen in a “permanent manner.” The Examiner has not met the burden of showing a motivation to combine the prior art references, which is an “essential evidentiary component of an obviousness holding.” C.R. Bard, Inc. v. M3 Sys. Inc., 157 F.3d 1340, 1352, 48 USPQ2d 1225, 1232(Fed. Cir. 1998) (emphasis added).

The problem solved by the presently claimed invention is not recognized in the art. Kehne clearly did not recognize any need for a replaceable screen in a casement window system. Roman, while providing a replaceable screen, does not recognize the problems associated with providing such a screen on a casement window. If the window screen of Roman were to be applied to a casement window in the manner that Roman requires, i.e., mounting the screen directly to the casing of the window, the crank and latching mechanisms of a casement window would interfere with the screen.

Roman is non-analogous and is directed at different window systems that have unique and substantially different problems. The interaction of a sliding window system (Roman) and a screen member is substantially different from that of a rotating window system as presently claimed. As is witnessed in commercially available window systems today, the screen systems that are useable on a double sliding sash window system are different in construction, manner of installation, aesthetics, sealing properties, and attachment mechanisms than screen systems of conventional casement windows.

Claims 14, 19, 24, 29, and 34

Claims 14, 19, 24, 29, and 34 were rejected under 35 USC 103(a) as being unpatentable over Kehne in view of Roman and further in view of U.S. Patent No. 5,365,707 to Jones et al.

Jones discloses an architectural element, such as a gable vent, which is mounted to a wall or surface by use of an attachment frame and clips that engage to secure the element to the frame. Jones discloses an octagonal shaped element in addition to a rectangular element.

Jones does not disclose a "removable" element. Nor does Jones disclose a "screen" element. The fastening mechanism of Jones is limited to a clip that engages a resilient portion of the element such that the element cannot be removed from the frame and Jones does not mention a "hook and loop fastener" of any type.

Other than showing a non-rectangular architectural element, Jones fails to add any new teachings to the arguments made above regarding Kehne and Roman which similarly apply to the rejection of claims 14, 19, 24, and 34.

Commercial Success of the Invention

The Examiner's attention is directed towards the 35 CFR 1.132 declarations of Mr. Randy Helzer and Mr. Michael Thompson which describe commercial success of the present invention by the licensee, Point Five Windows. Point Five Windows has been a licensee of the present technology since 1998, when the parent provisional application of the present patent application was filed.

Mr. Helzer is Vice President for Marketing and Sales at Point Five Windows and describes in his declaration that Point Five Windows has made sales in excess of \$6,300,000 for projects that included the Frameless Velcro Screen System.

Mr. Helzer states that the Frameless Velcro Screen System as sold by Point Five Windows includes all of the limitations of the amended claims as set forth in this Response to Office Action.

Mr. Helzer describes various advantages and benefits of the presently claimed invention such as: screens with spans in excess of five foot spans do not require a support member to prevent bowing of the frame, screens may be easily constructed for windows with curved or other specially shaped profiles, elimination of aluminum frames also eliminates corrosion due to salt water spray environments, and the enhanced visual benefits of mounting the screen between the moving sash and fixed frame.

All of these features have enabled Point Five Windows to make sales in excess of \$6,300,000 for projects that included the Frameless Velcro Screen System.

Mr. Thompson is an architect with Lipkin Warner Design, LLC that supported a contract to Point Five Windows in excess of \$580,000 for numerous windows that included the Frameless Velcro Screen System. Mr. Thompson supported the contract based in part on the specific aesthetic and functional qualities of the Frameless Velcro Screen System.

From the declarations of Mr. Helzer and Mr. Thompson, Point Five Windows has had commercial success based on the presently claimed invention.

For these reasons, and in view of the above amendments, this application is now considered to be in condition for allowance and such action is earnestly solicited.

Dated this 15th day of July 2003.

Respectfully submitted,

By: 

William W. Cochran

Reg. No. 26,652

The Law Offices of William W. Cochran, II

3555 Stanford Road, Suite 230

Fort Collins, CO 80525

Phone: (970) 377-6363

Fax: (970) 207-1985



Declaration under 37 CFR 1.132

I, Randy Helzer, declare as follows:

1. That I am currently the Vice President for Marketing and Sales for Point Five Windows, a licensee of technology disclosed and claimed in the United States Patent Application Serial Number 09/326,405 for a Frameless Velcro Screen System invented by Mr. Dave Lundahl;
2. That Mr. Dave Lundahl is President and part owner of Point Five Windows;
3. That I have held the position of Vice President for Marketing and Sales for Point Five Windows for a period of approximately 2 years and have been an employee of Point Five Windows for approximately 14 years;
4. That as part of my job responsibilities, I closely monitor industry trends by attending trade shows and by working closely with architects and builders;
5. That Point Five Windows is a manufacturer of avant-garde windows typically serving a very elite, high end market, specializing in unique solutions to very unique requirements with about 60 employees;
6. That the Frameless Velcro Screen System includes a casement window having a fixed frame, a moving sash connected to the fixed frame and operable to swing substantially about an axis with respect to the fixed frame, and a removable screen connected to the fixed frame with a hook and loop fastener system;
7. That the screen of the Frameless Velcro Screen System is mounted with the hook and loop fasteners between the fixed frame and the moving sash;
8. That I have reviewed the claims of United States Patent Application Serial Number 09/326,405 attached hereto as Exhibit A and it is my belief that the Frameless Velcro Screen System includes all of the limitations of these claims;
9. That the Frameless Velcro Screen System has specific advantages over conventional framed screens that are a competitive advantage for our company as a licensee;

10. That one of the competitive advantages of the Frameless Velcro Screen System is that screen frames are eliminated from the window system;
11. That conventional screen frames with spans in excess of five feet require support members to prevent the conventional screen frames from sagging or bowing into the viewing area, and such conventional screen frames are highly susceptible to damage during installation;
12. That in cases where a span of five feet or greater exists, Point Five Windows has successfully sold the Frameless Velcro Screen System;
13. That conventional screen frames are difficult to manufacture for windows having curved or other oddly shaped profiles;
14. That in cases where a window opening has curved or other oddly shaped profiles, Point Five Windows has successfully sold the Frameless Velcro Screen System;
15. That Point Five Windows has been the exclusive licensee of the Frameless Velcro Screen System since 1998, and Point Five Windows has sold over \$6,300,000 in 15 major orders of window systems that include the Frameless Velcro Screen System;
16. That conventional screen frames are typically manufactured from aluminum and may corrode when exposed to salt spray and other weather elements;
17. That the Frameless Velcro Screen System does not have a conventional screen frame and does not corrode;
18. That in 1999, Point Five Windows completed a contract for in excess of \$720,000.00 for windows and doors for use in a salt water environment in the Bahamas;
19. That the \$720,000.00 contract was awarded in large part specifically because the Frameless Velcro Screen System eliminated the conventional aluminum screen frame that would have been susceptible to deterioration in the harsh salt air environment of the Bahamas;

20. That another competitive advantage of the Frameless Velcro Screen System is that the screen design is much less visually intrusive than conventional window screen frames for casement windows;

21. That in 2002, Point Five Windows was awarded a contract for in excess of \$580,000.00 for casement type windows due in part to the aesthetic value of the Frameless Velcro Screen System;

22. That the architect for the above mentioned \$580,000.00 contract selected the Frameless Velcro Screen System specifically because the screen was mounted between the fixed frame and moving sash for a casement window;

23. That the architect specifically did not want a conventional screen frame that is typically mounted on the exterior frame of an in-swing casement window;

24. That the Frameless Velcro Screen System is a very important asset to Point Five Windows and a competitive advantage to Point Five Windows over other window systems that do not have the aesthetic and functional advantages of eliminating the conventional screen frame;

25. That I further declare that all statements made herein are believed to be true, and that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing therefrom.

Executed this 7 day of July 2003.

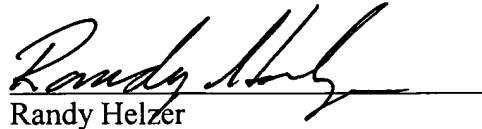

Randy Helzer

Exhibit A
Listing of Claims

1-10 (Previously cancelled)

11. (Currently Amended) An operable window system with a removable screen comprising:

a fixed frame;

a moving sash connected to said fixed frame and operable to substantially swing about an axis with respect to said fixed frame from an open position to a closed position; and

a removable screen without a substantially rigid peripheral frame removably connected to said fixed frame with hook and loop fasteners, said removable screen mounted between said fixed frame and said moving sash ~~such that said moving sash is in contact with said removable screen when said moving sash is in said closed position such that said hook and loop fastener is engaged.~~

12. (Previously Added) The operable window system of claim 11 wherein said axis is substantially vertical.

13. (Previously Added) The operable window system of claim 11 wherein said axis is substantially horizontal.

14. (Previously Added) The operable window system of claim 11 wherein said window system is non-rectangular.

15. (Previously Added) The operable window system of claim 11 wherein the portion of said moving sash in contact with said removable screen is said frame portion of said moving sash.

16. (Currently Amended) An operable window system with a removable screen comprising:

a fixed frame means for holding a window;

a moving sash means, connected to said fixed frame means, and operable to substantially swing about an axis with respect to said fixed frame means from an open position to a closed position; and

a removable screen means, removably connected to said fixed frame means with hook and loop fastening means, said removable screen means mounted between said fixed frame and said moving sash means ~~such that said moving sash is in contact with said removable screen when said moving sash is in said closed position such that said hook and loop fastener means is engaged~~, said removable screen means not having a substantially rigid peripheral frame.

17. (Previously Added) The operable window system of claim 11 wherein said axis is substantially vertical.
18. (Previously Added) The operable window system of claim 11 wherein said axis is substantially horizontal.
19. (Previously Added) The operable window system of claim 11 wherein said window system is non-rectangular.
20. (Currently Amended) The operable window system of claim 11 wherein ~~the portion of said moving sash in contact with said removable screen is said frame portion of said moving sash~~ said removable screen means is mounted between said fixed frame and said moving sash means such that said moving sash is in contact with said removable screen when said moving sash is in said closed position such that said hook and loop fastener means is engaged.
21. (Currently Amended) A method of manufacturing an operable window system comprising:
 - providing a fixed frame;
 - providing a moving sash having a frame portion;
 - providing a hinge mechanism adapted to allow said moving sash to move in a substantially rotational motion relative to said fixed frame;
 - providing a removable screen without a substantially rigid peripheral frame;
 - providing a hook and loop fastener system having a hook portion and a loop portion;

attaching at least one of said hook portion and said loop portion of said hook and loop fastener system to said removable screen;

attaching at least one of said hook portion and said loop portion of said hook and loop fastener system, that is not attached to said screen portion, to said fixed frame in a location between said frame portion and said fixed frame;

attaching a said moving sash to said fixed frame with said hinge mechanism in such a manner that said moving sash substantially rotates about an axis with respect to said fixed frame from an open position to a closed position; and

attaching a said removable screen directly to said fixed frame using a said hook and loop fastener system in said location between said frame portion and said fixed frame, ~~such that said removable screen is mounted between said fixed frame and said moving sash such that said moving sash is in contact with said removable screen when said moving sash is in said closed position.~~

22. (Currently Amended) The ~~operable window system~~ method of claim 11 wherein said axis is substantially vertical.
23. (Currently Amended) The ~~operable window system~~ method of claim 11 wherein said axis is substantially horizontal.
24. (Currently Amended) The ~~operable window system~~ method of claim 11 wherein said window system is non-rectangular.
25. (Currently Amended) The ~~operable window system~~ method of claim 11 wherein ~~the portion of said moving sash in contact with said removable screen is said frame portion of said moving sash~~ said removable screen means is mounted between said fixed frame and said moving sash means such that said moving sash is in contact with said removable screen when said moving sash is in said closed position such that said hook and loop fastener means is engaged.
26. (Currently Amended) An operable window system manufactured by the process comprising:

providing a fixed frame;

attaching a moving sash to said fixed frame in such a manner that said moving sash substantially rotates about an axis with respect to said fixed frame from an open position to a closed position; and

attaching a removable screen that does not have a substantially rigid peripheral frame to said fixed frame using a hook and loop fastener, such that said removable screen is mounted between said fixed frame and said moving sash ~~such that said moving sash is in contact with said removable screen when said moving sash is in said closed position.~~

27. (Previously Added) The operable window system of claim 11 wherein said axis is substantially vertical.
28. (Previously Added) The operable window system of claim 11 wherein said axis is substantially horizontal.
29. (Previously Added) The operable window system of claim 11 wherein said window system is non-rectangular.
30. (Previously Added) The operable window system of claim 11 wherein the portion of said moving sash in contact with said removable screen is said frame portion of said moving sash.
31. (Currently Amended) An operable window system with a removable screen comprising:

a fixed frame;

a moving sash connected to said fixed frame and operable to substantially swing about an axis with respect to said fixed frame from an open position to a closed position; and

a removable screen removably and directly connected to said fixed frame with hook and loop fasteners, said removable screen not being mounted on a substantially rigid frame, said removable screen mounted between said fixed frame and said moving sash such that said removable screen covers a window opening defined by said fixed frame when said moving sash is in said open position.

32. (Currently Amended) A method of manufacturing an operable window system comprising:

providing a fixed frame;

attaching a moving sash to said fixed frame in such a manner that said moving sash substantially rotates about an axis with respect to said fixed frame from an open position to a closed position; and

attaching a removable screen that does not have a substantially rigid peripheral frame directly to said fixed frame using a hook and loop fastener, such that said removable screen is mounted between said fixed frame and said moving sash ~~such that said screen covers a window opening defined by said fixed frame when said moving sash is in said open position.~~

33. (Currently Amended) An operable window system manufactured by the process comprising:

providing a fixed frame;

attaching a moving sash to said fixed frame in such a manner that said moving sash substantially rotates about an axis with respect to said fixed frame from an open position to a closed position; and

attaching a removable screen that does not have a substantially rigid peripheral frame directly to said fixed frame using a hook and loop fastener, such that said removable screen is mounted between said fixed frame and said moving sash ~~such that said screen covers a window opening defined by said fixed frame when said moving sash is in said open position.~~

Declaration under 37 CFR 1.132

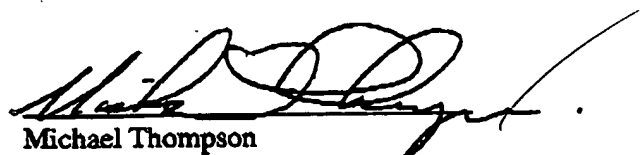
I, Michael Thompson, declare as follows:

1. That I am currently an architect at Lipkin Warner Design and Planning, LLC of Basalt, Colorado;
2. That in 2002, Lipkin Warner Design and Planning, LLC supported a contract award to Point Five Windows in excess of \$580,000.00 for numerous windows for a residence project;
3. That I worked with Mr. Randy Helzer of Point Five Windows on the above mentioned residence project;
4. That Point Five Windows used a Frameless Velcro Screen System on numerous casement windows on the above mentioned residence project;
5. That the Frameless Velcro Screen System supplied by Point Five Windows is a casement window having a fixed frame, a moving sash connected to the fixed frame and operable to swing substantially about an axis with respect to the fixed frame, and a removable screen connected to the fixed frame with a hook and loop fastener system;
6. That the screen of the Frameless Velcro Screen System is mounted between the fixed frame and the moving sash;
7. That the award to Point Five Windows was due in part to the Frameless Velcro Screen System;
8. That I specifically did not want a conventional screen having a frame that is typically mounted on a casement window for the above mentioned project;
9. That Lipkin Warner Design and Planning, LLC supported the \$580,000.00 contract award to Point Five Windows based in part on the fact that the Frameless Velcro Screen System offered aesthetic and functional differences over any other known solution, which included conventional screen frames;
10. That I further declare that all statements made herein are believed to be true, and that these statements were made with the knowledge that willful false



statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing therefrom.

Executed this 13TH day of June 2003.



Michael Thompson